

WHAT IS CLAIMED IS:

1. A method for forming a silicide conductive structure on a semiconductor device, the method comprising:
5 depositing metal on the surface of a patterned semiconductor film;
heat treating the semiconductor film on which the metal is deposited;
removing residual metal that did not react during the
10 heat treating step; and
repeating the depositing step, the heat treating step, and the removing step once or a number of times.

2. The method for manufacturing the semiconductor device according to claim 1, further comprising:
5 heat treating the semiconductor film after the repeating step at a temperature that is higher than that of the heat treating step.

3. The method for manufacturing the semiconductor device according to claim 2, wherein the patterned semiconductor film is an N-type semiconductor.

4. A method for manufacturing a semiconductor device,
25 comprising:
forming a conductive portion on the substrate, wherein the conductive portion includes a gate electrode;
forming a spacer on a side wall of the gate electrode;
depositing metal on the surface of the substrate
30 including the conductive portion;
applying silicide on the conductive portion in a self-aligned manner by heat treating the substrate on which the metal is deposited;

removing residual metal that did not react during the heat treatment; and

repeating the depositing step, the silicide applying step, and the removing step once or a number of times.

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5. The method for manufacturing the semiconductor device according to claim 4, further comprising:

heat treating the substrate after the repeating step at a temperature that is higher than that of the heat treating step .

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6. The method for manufacturing the semiconductor device according to claim 5, wherein the conductive portion to which silicide is applied is an N-type semiconductor.

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7. The method for manufacturing the semiconductor device according to claim 4, wherein the thickness of the gate electrode is 1,000Å (10^{-8} cm) to 2,500Å (10^{-8} cm), and the heat treating is repeated in a temperature range of 600°C to 720°C.

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8. The method for manufacturing the semiconductor device according to claim 7, further comprising:

heat treating the substrate after the repeating step for 30 seconds at a temperature of about 850°C.

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9. The method for manufacturing the semiconductor device according to claim 8, wherein the conductive portion to which silicide is applied is an N-type semiconductor.